CLAIMS

1. Scheduling means for data switching apparatus having a plurality of input ports and a plurality of output ports, the scheduling means being for processing a plurality of interconnection requests, each request requesting interconnection between a subset of said input ports and a subset of respective said output ports, and each request being associated with a priority level (Pi) which has one of a predetermined number of priority levels;

the scheduling means comprising:

determination means for determining a first set of said requests according to said respective priority levels; and

a first pipeline stage (10) for receiving said first set of requests and satisfying at least some of the first set of requests;

and characterized by further comprising:

priority mixer means (13) for determining a further set of said requests, the further set being composed of those requests of said first set which were not satisfied, and of requests among said plurality of requests which were not part of said first set and which are of any of said priority levels; and

an additional pipeline stage (11) for identifying requests in said further set which can be satisfied, and for satisfying the identified requests.

2. Scheduling means according to claim 1 in which said determination means at any time determines said first set of requests to have the same priority level, which is a selected priority level.

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3. Scheduling means according to claim 2 in which the determination means varies the selected priority level with time, the proportion of time for which the selected priority level takes each of said predetermined number of priority levels being according to a respective predetermined proportion.

4. Scheduling means according to claim 1, claim 2 or claim 3 further comprising a further pipeline stage (12) receiving the requests not satisfied by the additional pipeline stage (11), or a plurality of successive further pipeline stages, the first of the successive further pipeline stages receiving the requests not satisfied by the additional pipeline stage (11), and each of the other successive further pipeline stages receiving the requests not satisfied by the preceding further pipeline state.

5. Scheduling means according to claim 4 further comprising priority mixing means provided before any of said further pipeline stages, for transmitting to that further pipeline stage additional ones of said requests ~~which have not been satisfied.~~

6. Scheduling means according to ~~any preceding~~ claim 4, which employs a data array (CV_i, CV_o) defining connections, said pipeline stage satisfying said requests by modifying said data array.

7. Scheduling means according to claim 6 in which, upon receiving instructions specifying predetermined connections between some of the ports, said data array (CV_i) is modified to include said predetermined connections, whereby said pipeline stages only satisfying requests which are consistent with said predetermined connections.

8. Scheduling means according to ~~any preceding~~ claim 1, further comprising means which, upon receiving instructions to inhibit connections to or from any of the input or output ports, modifies the inputs to the first pipeline stage and priority mixer to prevent connections to or from said inhibited ports.